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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,453	02/24/2004	Brian R. Tunning	MS307046.01	4913

69316	7590	07/09/2008
MICROSOFT CORPORATION		
ONE MICROSOFT WAY		
REDMOND, WA 98052		

EXAMINER	
PHAM, KHANH B	

ART UNIT	PAPER NUMBER
2166	

NOTIFICATION DATE	DELIVERY MODE
07/09/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DBOUTON@MICROSOFT.COM

Office Action Summary	Application No. 10/786,453	Applicant(s) TUNNING, BRIAN R.	
	Examiner Khanh B. Pham	Art Unit 2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6-10,12-14,16-22,24,26,27,29-36,38,39,41-44 and 46-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6-10,12-14,16-22,24,26,27,29-36,38,39,41-44 and 46-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **1,3,4,6-10,12-14,16-22,24,26,27,29-36,38,39,41-44 and 46-58** are rejected under 35 U.S.C. 103(a) as being unpatentable over Anick et al. (US 5,175,814 A), hereinafter "**Anick**", and in view of Schirmer et al. (US 6,768,997 B2), hereinafter "**Schirmer**".

As per claim 1, Anick teaches a computer readable storage media encoded with computer executable instructions that implement a visual query system comprising:

- "query criteria of a query expression displayed as shapes that have a semantic relationship which represents logical associations between the query criteria" at Col. 6 lines 1-20 and Figs. 2-13;
- "where a first shape of query criteria is displayed proximate a second shape of query criteria within a visual query definition that is bordered to defined a Boolean association between the first shape and the second shape that are both displayed within the visual query definition" at Col. 6 lines 1-20 and Figs. 2-13;
- "a query statement generator configured to: determine the Boolean association corresponding to the semantic relationship of the shapes" at Col. 6 lines 10-26;

- “generate a SQL query statement for each shape of query criteria” at Col. 10-26 and Figs. 2-13;
- “combine the SQL query statements according to the Boolean association to generate the query expression” Figs. 14, 17, 20, 22-23;
- “generate a query result of the combined SQL query statements that form the query expression” at Fig. 20;
- “a user interface configured to display the query result of the query expression” at Figs. 2-13.

Anick does not explicitly teach “a visual query definition includes a **visual border**” as claimed. However, Schirmer teaches a similar method for defining visual query, comprising “a visual query definition includes a visual border” at Fig. 1. Thus, it would have been obvious to one of the skill in the art, at the time of the invention was made, to add a visual border so that “the system user is permitted to view a search query in an intuitive, graphical format to determine the results that will be produced” as suggested by Schirmer at Col. 2 lines 50-52.

As per claim 3, Anick and Schirmer teach the storage media of claim 1 discussed above. Anick also teaches: “the first shape of query criteria is displayed proximate the second shape of query criteria such that the first shape has an AND Boolean association with the second shape” at Col. 6 lines 9-19 and Figs. 2-13.

As per claim 4, Anick and Schirmer teach the storage media of claim 1. Anick also teaches: “the first shape of query criteria is displayed proximate the second shape of query criteria within the visual query definition such that the first shape has an AND Boolean association with the second shape within the visual query definition” at Col. 6 lines 9-19 and Figs. 2-13.

As per claim 6, Anick and Schirmer teach the storage media of claim 1. Schirmer also teaches: “a first set of query criteria are displayed within the visual query definition, and wherein a second set of query criteria are displayed within an additional visual query definition, the first set of query criteria including the second set of query criteria such that the addition visual query definition is displayed within the visual border of the visual query definition” at Fig. 1.

As per claim 7, Anick and Schirmer teach the storage media of claim 1 discussed above. Anick also teaches: “a first set of query criteria are displayed within the visual query definition on the user interface; a second set of query criteria are displayed on the user interface within an additional visual query definition, the first set of query criteria including the second set of query criteria such that the additional visual query definition is displayed within the visual border of the visual query definition; the query statement generator is further configured to generate a first query result of the first set of query criteria and generate a second query result of the second set of query

criteria such that the first query result and the second query result are displayed as multiple query results" at Col. 8 lines 1-8 and Figs. 2-13.

As per claim 8, Anick and Schirmer teach the storage media of claim 1 discussed above. Anick also teaches: "an additional shape of query criteria is configured for display with the query criteria, and wherein the query statement generator is further configured to: determine an additional Boolean association corresponding to the semantic relationship of the additional shape of query criteria; generate an additional SQL query statement for the additional shape of query criteria; combine the SQL query statements and the additional SQL query statement according to the additional Boolean association, and updating the query result of the combined SQL query statements and the additional SQL query statement" at Figs. 2-13.

As per claim 9, Anick and Schirmer teach the storage media of claim 1 discussed above. Anick further teaches: "data tables that maintain data criteria, and wherein the query criteria is displayed in user-identifiable terms as metadata that correlates to the data criteria maintained in the data tables" at Col. 10 lines 15-65 and Figs 6-9, elements 600, 700, 800, 900.

As per claim 10, Anick and Schirmer teach the storage media of claim 1 discussed above. Anick also teaches: wherein "the user interface is further configured to: display criteria selections that include the query criteria within a criteria selection

display on the user interface; display the shapes of query criteria within the visual query definition on the user interface; display the query result within the visual border of the visual query definition on the user interface" at Figs. 2-13.

As per claim 12, Anick teaches a computer-readable storage media encoded with computer-executable instructions that implement a visual query system, comprising:

- "a visual query definition displayed to associate query criteria of a query expression, the query criteria displayed as shapes within the visual query definition such that proximate positions of the query criteria define query criteria associations" at Col. 6 lines 1-26 and Figs. 2-13;
- "a query statement generator configured to: determine a query statement association for each display relationship of the query criteria" at Col. 6 lines 20-26;
- "generate a SQL query statement for each of the query criteria";
- "combine the SOL query statements according to the query statement associations to generate the query expression" at Figs. 14, 17, 20, 22-23;
- "generate a query result of the combined SQL query statements that form the query expression for display in the visual query definition" at Fig. 20; and
- "a user interface configured to display the query result of the query expression within the visual query definition on the user interface" at Figs. 2-13.

Anick does not explicitly teach "visual query definition displayed with a **visual border**" as claimed. However, Schirmer teaches a similar method for defining visual

query, comprising "a visual query definition displayed with a visual border" at Fig. 1.

Thus, it would have been obvious to one of the skill in the art, at the time of the invention was made, to add a visual border so that "the system user is permitted to view a search query in an intuitive, graphical format to determine the results that will be produced" as suggested by Schirmer at Col. 2 lines 50-52.

As per claim 13, Anick and Schirmer teach a computer-readable storage media as recited in claim 12 discussed above. Anick also teaches: "wherein the visual query definition is further displayed to associate the query criteria without logic operators connected between the query criteria" at Figs. 2-13.

As per claim 14, Anick and Schirmer teach the computer-readable storage media as recited in claim 12 discussed above. Anick also teaches: "the query statement generator is further configured to determine the query statement associations as a Boolean association for each display relationship of the query criteria" at Col. 6 lines 1-26.

As per claim 16, Anick and Schirmer teach the computer-readable storage media as recited in claim 12 discussed above. Anick also teaches: "a first query criteria is displayed proximate a second query criteria within the visual query definition such that the first query criteria has an AND query statement association with the second query criteria" at Figs. 2-13.

As per claim 17, Anick and Schirmer teach the computer-readable storage media as recited in claim 12 discussed above. Anick also teaches: “a first query criteria is displayed proximate a second query criteria within the visual query definition such that the first query criteria has an OR query statement association with the second query criteria” at Figs. 2-17.

As per claim 18, Anick and Schirmer teach the computer-readable storage media as recited in claim 12 discussed above. Schirmer also teaches: “the visual query definition is bordered to define a query statement association between a first query criteria displayed proximate a second query criteria within the visual query definition” at Fig. 1.

As per claim 19, Anick and Schirmer teach the computer-readable storage media as recited in claim 12 discussed above. Schirmer also teaches: “a second visual query definition displayed to associate additional query criteria of the query expression, wherein: the visual query definition includes the second visual query definition displayed within the visual border of the visual query definition; and the query statement generator is further configured to generate a second query result for the second visual query definition such that the query result and the second query result can be displayed as multiple query results” at Fig.1.

As per claim 20, Anick and Schirmer teach the computer-readable storage media as recited in claim 12 discussed above. Anick also teaches: “the visual query definition is further displayed to associate additional query criteria, and wherein the query statement generator is further configured to: determine an additional query statement association for a display relationship of the additional query criteria; generate an additional SQL query statement for the additional query criteria; combine the SQL query statements and the additional SQL query statement according to the additional query statement association; and update the query result of the combined SQL query statements and the additional SQL query statements” at Figs. 2-13.

As per claim 21, Anick and Schirmer teach the computer-readable storage media as recited in claim 12 discussed above. Anick also teaches: “the user interface is further configured to: display criteria selections that include the query criteria within a criteria selection display on the user interface; and display the query criteria within the visual query definition on the user interface” at Figs. 2-13.

As per claim 22, Anick and Schirmer teach the computer-readable storage media as recited in claim 12 discussed above. Anick also teaches: “data tables that maintain data criteria, and wherein the query criteria is displayed in user-identifiable terms as metadata that correlates to the data criteria maintained in the data tables” at Figs. 2-13.

As per claim 24, Anick teaches a computer-readable storage media encoded with computer-executable instructions that, when executed, display a user interface, comprising:

- “a criteria selection display of query criteria” at Figs. 2-13;
- “a visual query definition displayed to associate the query criteria of a query expression based on proximate positions of the query criteria in the visual query definition and without logic operators connected between the query criteria, each of the query criteria represented by a shape displayed within the visual query definition” at Col. 6 lines 1-20 and Figs. 2-13;
- “a display attribute of the visual query definition that defines a Boolean association of the query criteria represented by the shapes displayed within the visual query definition” at Figs. 2-13; and
- “a query result displayed within the visual query definition, the query result generated from a combination of one or more query statements that are combined to generate the query expression, the one or more query statements representing a shape of query criteria and the association of the query criteria” at Figs. 2-14, 17, 20, 22-23.

Anick does not explicitly teach “a **visual border** of the visual query definition” as claimed. However, Schirmer teaches a similar method for defining visual query, comprising “a visual border of the visual query definition ” at Fig. 1. Thus, it would have been obvious to one of the skill in the art, at the time of the invention was made, to add a visual border so that “the system user is permitted to view a search query in an

intuitive, graphical format to determine the results that will be produced" as suggested by Schirmer at Col. 2 lines 50-52.

As per claim 26, Anick and Schirmer teach the computer-readable storage media as recited in claim 24 discussed above. Anick also teaches: "the query criteria are drag-and-drop query criteria from the criteria selection display to the visual query definition" at Col. 16 lines 50-65.

As per claim 27, Anick and Schirmer teach the computer-readable storage media as recited in claim 24 discussed above. Anick also teaches: "the visual query definition can be copied to create a second visual query definition for display on the user interface, and wherein the second visual query definition is redefined in an event that the visual query definition is redefined" at Figs. 10-11.

As per claim 29, Anick and Schirmer teach the computer-readable storage media as recited in claim 24 discussed above. Anick also teaches: "a color of the visual query definition defines the Boolean association of the query criteria represented by the shapes displayed within the visual query definition" at Figs. 2-13.

As per claim 30, Anick and Schirmer teach the computer-readable storage media as recited in claim 24 discussed above. Anick also teaches: "the visual border of the visual query definition defines the Boolean association of the query criteria

represented by the shapes displayed within the visual border of the visual query definition” at Figs. 2-13.

As per claim 31, Anick and Schirmer teach the computer-readable storage media as recited in claim 24 discussed above. Anick also teaches: “the one or more query statements are SQL query statements, and wherein the query result is generated from the combination of the one or more SQL query statements” at Col. 13 lines 15-40 and Col. 18 line 55 to Col. 19 line 60.

As per claim 32, Anick and Schirmer teach the computer-readable storage media as recited in claim 24 discussed above. Anick also teaches: “a first shape of query criteria is displayed proximate a second shape of query criteria within the visual query definition such that the first shape has an AND query statement association with the second shape” at Col. 6 lines 1-26 and Figs. 2-13.

As per claim 33, Anick and Schirmer teach the computer-readable storage media as recited in claim 24 discussed above. Anick also teaches: “a first shape of query criteria is displayed proximate a second shape of query criteria within the visual query definition such that the first shape has an OR query statement association with the second shape” at Col. 6 lines 1-26 and Figs. 2-13.

As per claim 34, Anick and Schirmer teach the computer-readable storage media as recited in claim 24 discussed above. Anick also teaches: “additional query criteria not associated with the visual query definition and displayed to indicate the non-association” at Figs. 2-13.

As per claim 35, Anick teaches a method, comprising:

- “displaying query criteria of a query expression as shapes on a user interface” at Figs. 2-13;
- “the shapes having a semantic relationship which represents logical associations between the query criteria, the query criteria further displayed as a first set of query criteria within a first visual query definition, and as a second set of query criteria within a second visual query definition such that the first set of query criteria includes the second set of query criteria” at Col. 6 lines 1-20 and Figs. 2-13;
- “determining a query statement association for each display relationship of the shapes of query criteria” at Col. 6 lines 1-20;
- “generating a SQL query statement for each shape of query criteria” at Col. 6 lines 10-26 and Figs. 2-13;
- “combining the SQL query statements according to the query statement associations to generate the query expression” at Figs. 14, 17, 20, 22-23; and

- “displaying a query result of the query expression on the user interface” at Figs. 2-13.

Anick does not explicitly teach “a **visual border** of the visual query definition” as claimed. However, Schirmer teaches a similar method for defining visual query, comprising “a visual border of the visual query definition ” at Fig. 1. Thus, it would have been obvious to one of the skill in the art, at the time of the invention was made, to add a visual border so that “the system user is permitted to view a search query in an intuitive, graphical format to determine the results that will be produced” as suggested by Schirmer at Col. 2 lines 50-52.

As per claim 50, Anick teaches one or more computer readable storage media comprising computer executable instructions that, when executed, direct a computing device to:

- “display a visual query definition to associate query criteria of a query expression, the query criteria displayed as shapes having display relationships within the visual query definition” at Figs. 2-13;
- “determine a query statement association for each shape of query criteria according to the display relationships” at Col. 6 lines 1-26;
- “generate a query statement for each shape of query criteria” at Col. 6 lines 10-26;
- “combine the query statements according to the query statement associations to generate the query expression” at Figs. 14, 17, 20-23;

- “generate a query result of the combined query statements that form the query expression” at Figs. 14, 17, 20-23;
- “display the query result in the visual query definition on a user interface” at Figs. 2-13.

Anick does not explicitly teach “a **visual border** of the visual query definition” as claimed. However, Schirmer teaches a similar method for defining visual query, comprising “a visual border of the visual query definition ” at Fig. 1. Thus, it would have been obvious to one of the skill in the art, at the time of the invention was made, to add a visual border so that “the system user is permitted to view a search query in an intuitive, graphical format to determine the results that will be produced” as suggested by Schirmer at Col. 2 lines 50-52.

Claims 36, 38-39, 41-44, 46-49, 51-58 recite similar limitation as discusses in the rejection of the claims above and are therefore rejected by the same reasons.

Response to Arguments

3. Applicant's arguments with respect to claims 1,3,4,6-10,12-14,16-22,24,26,27,29-36,38,39,41-44 and 46-58 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claim 1, applicant argued that Anick does not teach “visual border of the visual query definition”. However, Schirmer teaches this limitation at Fig. 1.

Regarding claims 6-7, applicant argued that Anick does not teach “additional visual query definition is displayed within the visual border of the visual query definition”. On the contrary, Schirmer teaches this limitation at Fig. 1.

Regarding claim 10, applicant argued that Anick does not teach “display the query result within the visual border of the visual query definition on the user interface” at Fig. 2 because the number “15” in the rectangle tile identified by “BACKUP saveset” is not a query result”. On the contrary, the number “15” is “a number of times that the phrase occurs in a database search”, and therefore is considered “search result”.

Applicant’s argument regarding claims 12, 24, 35, and 50 are similar to the arguments discussed above.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh B. Pham whose telephone number is (571) 272-4116. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Khanh B. Pham/
Primary Examiner
Art Unit 2166

July 2, 2008